



September 27, 2021

Re: Workshop Comments on Draft Regulatory Language for the Advanced Clean Fleets Regulation

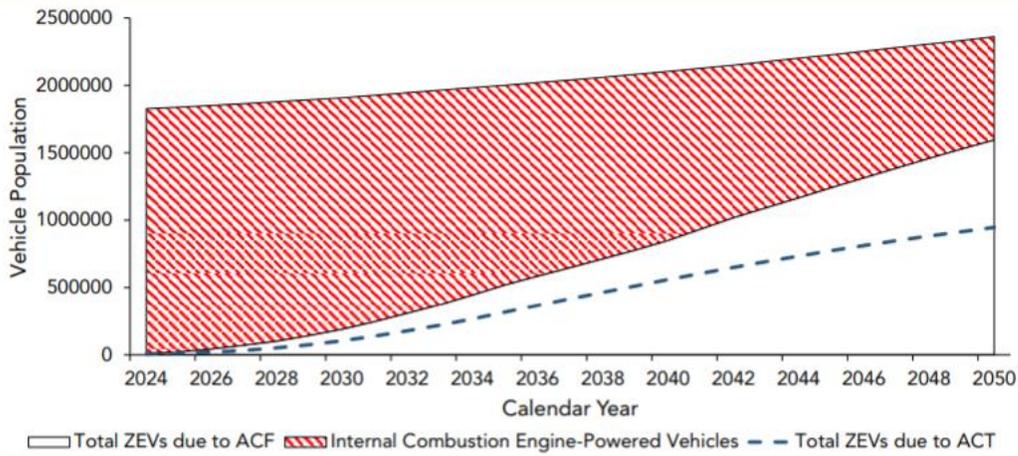
The undersigned environmental, environmental justice, health, science-based advocacy, and labor organizations write to share our concerns about the gaps in the current Advanced Clean Fleets proposal (“ACF”). Over the course of this rulemaking, rising freight pollution continues to bombard communities amid a respiratory disease pandemic. With the current global trajectory of GHG emissions “...committing the planet to dangerous future warming...”,¹ millions of Californians are living in trepidation as climate catastrophes unravel across our State faster than anyone predicted. Meanwhile, Staff is delaying the ACF’s adoption by at least a year, something they have told us is necessary to design a robust regulation.

Yet, they have so far failed to incorporate several crucial improvements necessary to align the regulation with any realistic chance of meeting the State’s climate and air quality targets. The current proposal plainly fails to meet the goals of Governor Newsom’s Executive Order N-79-20, the targets defined in CARB’s own Mobile Source Strategy, nor the objectives of the CARB Board to “achieve a smooth transition to a zero-emission vehicle fleet by 2045 everywhere feasible.”²

¹ WMO (September 16, 2021) <https://public.wmo.int/en/media/press-release/climate-change-and-impacts-accelerate>

² CARB Resolution 20-19 (June 25, 2020) (available at: <https://ww3.arb.ca.gov/regact/2019/act2019/finalres20-19.pdf>)

Projected Class 2b-8 Vehicle Population



As the figure above shows, CARB's two key regulatory



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mechanisms for eliminating truck pollution are undeniably off-track. **In 2045, when vehicles “everywhere feasible” need to be zero-emission, half the truck population is still combustion-powered.** Even in 2050, a third of the vehicle population will continue polluting. The importance of closing this gap in the now-delayed ACF cannot be overstated. There are no additional regulatory mechanisms in CARB’s long-term portfolio. Moreover, our proposal to align with the Mobile Source Strategy, is the minimum CARB must achieve, because Staff have acknowledged that the MSS still falls short of timely attainment of California’s air quality and climate requirements.

Incorporating our recommendations would undoubtedly result in fewer hospitalizations, fewer missed school and workdays, fewer premature deaths, and faster reductions in climate destabilizing greenhouse gases—and that should be enough reason for CARB to strengthen it. Yet we are also confident, based on CARB’s own analysis of today’s technology, a stronger rule is both imminently feasible and economically compelling.

I. Require 100% ZE Sales Mandate by 2035

The most obvious correction needed is to set the 100% ZEV sales mandate for 2035 to match CARB’s MSS, align with the Board and Governor’s direction, and respond to the same request from over 10,000 Californians who submitted comments to CARB. This is also the most effective tool for bridging the shortfall of ZE trucks in the current proposal. Because a large portion of trucks are not part of any identifiable fleet and do not operate in a particular area of commercial activity, even a strengthened purchase requirement will have limited reach over the full truck population. Similarly, because of useful life restrictions from SB 1, an earlier 100% ZE sales mandate is essential to minimize the number of polluting trucks that will remain on the road beyond 2045.

Staff share our view that a 100% sales mandate is necessary to provide “[c]ertainty to the market and supply chain” about the direction of California’s truck fleet.³ Staff, however, fail to explain how setting regulations that do not align with State objectives convey that certainty. Staff have raised the concern that a 2035 sales mandate overlaps with the dates in the current ACT rule. If a legal barrier exists, we would welcome a fix of setting the 100% sales mandate in 2036, rather than defer another five years.

Staff have also suggested that the gap between their regulations and the State’s goals might be filled through other indirect policy measures. This argument is an admission that Staff believe the outcome of 100% ZE sales by 2035 is feasible yet refuse to secure those sales with a direct mandate. If CARB believes that other policy measures will get us to our goals, they have failed to articulate what those alternatives would be, or how they would be superior to a simpler sales requirement that requires the outcome in the current rulemaking.

Based on CARB’s own robust (though largely conservative) analysis and the latest technology reports, a 100% ZEV sales requirement by 2035 is feasible and cost effective. Currently, 30 companies offer at least one medium- and heavy-duty ZEV for sale commercially covering every class of truck, which will grow to at least 40 by 2025.⁴ Commercial ZEV offerings today are capable of supporting the majority of truck duty cycles.⁵ Therefore, it is reasonable to assume a ZEV solution will exist for all duty cycles by 2035. Further, a recent national study found that global and domestic supply chains can meet a 100% ZEV sales requirement for medium- and heavy-duty vehicles by 2035 and electric grid impacts are well within the power sector’s ability to manage.⁶

Staff have raised the concern that the needs of long-haul heavy-duty trucks make the 2035 date seem unrealistic. Setting aside CARB’s authority to set technology-forcing mandates that move the market in line with breathable air and a safe climate, all evidence suggests it is perfectly reasonable to expect all categories of medium- and heavy-duty vehicles to be zero-emission-ready more than a decade from now. Given the bevy of new reports underscoring the feasibility of zero-emission long-haul trucking *today*,⁷ and the pace of progress in the last two years alone, Staff should feel confident that they can meet the goals our Governor and Board members expect from them. If the concern is lack of adequate MHD charging infrastructure nationally by then, CARB can deal with that on an exception basis.

Beginning in 2025, battery-electric trucks would already deliver positive cashflows in most truck categories, in some cases significantly so.⁸ By 2030, there isn’t a single truck category without a ZE

³ CARB, ACF Regulation Workshop (Sept 9, 2021) at slide 58 https://ww2.arb.ca.gov/sites/default/files/2021-09/210909acfpres_ADA.pdf.

⁴ <https://www.mjbradley.com/sites/default/files/EDFMHDVEVFeasibilityReport22jul21.pdf>

⁵ <https://www.mjbradley.com/sites/default/files/EDFMHDVEVFeasibilityReport22jul21.pdf>

⁶ <https://www.2035report.com/transportation/>

⁷ See, e.g. Björn Nykvist et al, The Feasibility of Heavy Battery Electric Trucks *Joule* (Apr. 21, 2021) <https://doi.org/10.1016/j.joule.2021.03.007>; Amol Phadke et al, Why Regional and Long-Haul Trucks are Primed for Electrification Now (Mar. 2021) <https://eta-publications.lbl.gov/publications/why-regional-and-long-haul-trucks-are>; Kiran Julin “Hydrogen Offers Promising Future for Long-Haul Trucking Industry” (Apr. 8, 2021) <https://newscenter.lbl.gov/2021/04/08/hydrogen-offers-promising-future-for-long-haul-trucking-industry/>.

⁸ CARB, Draft Advanced Clean Fleets Total Cost of Ownership Discussion Document (Sept 9, 2021) at 5-6 https://ww2.arb.ca.gov/sites/default/files/2021-08/210909costdoc_ADA.pdf.

option that has a more favorable TCO than its combustion counterpart.⁹ At that point, there is no reason why the life-saving, climate-protecting alternative should not be required for every sale. Our request for 100% sales by 2035 is therefore still a conservative proposal, allowing another 5 years before new combustion vehicle sales would be phased out.

Staff has also expressed concern about other States' willingness to accept more aggressive targets. Of the States that have joined California in the Memorandum of Understanding to accelerate MHD ZE vehicles, all but two have statutory economy-wide climate targets that are as or more aggressive than California's current goal of a 40% reduction from 1990 levels by 2030. These targets imply the need for proportional reductions from the road transportation sector equivalent to California's, analyzed through the Mobile Source Strategy.

The simplest path for these State's to meet their climate obligations will be for California to adopt sufficiently-stringent standards that they can opt into. Far from being a reason to dilute the strength of the rule, other States' reliance on California's standards is all the more reason to pursue greater ambition. The number of Section 177 states is rapidly expanding¹⁰ due to their need to address air pollution and climate change and the immense benefits afforded by California's vehicle emission standards. Already a half-dozen states are preparing to adopt the Advanced Clean Trucks and Heavy-Duty Omnibus rules, while double that number are actively tracking CARB's ACF rulemaking. All indications are that an aggressive ACF rule will be well received by the Section 177 states.

In addition to preparing to adopt the ACT rule, many of these states offer incentive programs for medium- and heavy-duty vehicles and/or electric vehicle charging infrastructure.

Even if no States join California – a proposition we cannot believe CARB Staff take seriously given technology advances and the growing political mandate to act on the climate crisis – CARB's obligations are first and foremost California communities that live with the most polluted air anywhere in the nation. The primarily Low-income, Black- and Brown-, Indigenous, (and) People of Color communities that shoulder the worst of California's truck pollution cannot afford a delayed timetable. CARB has both a moral and legal imperative to work as expeditiously as possible to address the environmental racism of our freight system, which continues to expand in the State's Black and Brown communities least-resourced to avoid or mitigate, let alone manage its impacts. Rather than dilute the strength of the regulations, California should forge ahead by the strength of its commitment to do right by these communities, and again prove by example that ambitious, lifesaving, environmental regulations are entirely compatible with a more just and thriving economy.

II. Close Regulatory Loopholes

Several obvious loopholes and gaps exist in the current proposal that must be addressed to align with the directives from the Board and Governor. Below we offer specific changes to the regulatory text that must be adopted to help close these loopholes and gaps.

⁹ Id.

¹⁰ On September 22, 2021 the Canadian province of Québec announced that it has also now joined the Multi-State ZEV Task Force <https://www.newswire.ca/news-releases/quebec-joins-a-coalition-of-states-that-want-to-accelerate-marketing-zero-emission-heavy-duty-vehicles-in-north-america-819589808.html>

1. Address Drayage Loophole

The proposal does not result in all drayage trucks being zero emissions by 2035 despite the Board and Governor's directives to do so. By only requiring trucks entering ports and railyards to be zero emissions by 2035, the proposal creates a loophole for trucks moving containers once they leave the port or railyard. We know, for example, that many of the trucks delivering containers to warehouses in the Inland Empire and the San Joaquin Valley are not registered drayage trucks. The loophole in the rule promises to make this practice more common. Port communities may also see little benefit if dray-off operations grow and truck traffic at off-port yards increases.

CARB should make the following amendments to better address this issue:

- Require Priority Fleets to Have 100% Zero-Emission Day Cabs by 2035.

Table A in Section 95692.1(a) should be revised to ensure that all Group 2 trucks are 100% zero-emissions by 2035. CARB should therefore eliminate the current Group 2 category, and put all of these trucks into Group 1 with no changes to the proposed Group 1 milestones.

As a matter of technical and economic feasibility, there is no reason to believe that a 2035 100% zero-emission target for these Group 2 trucks is unreasonable. CARB's own analysis shows positive total cost of ownership for the relevant use cases, there are ZE trucks available from a number of OEMS today and more coming in the next two years, and these trucks have sufficient range to meet most duty cycles today.

- Accelerate Milestones for Sleeper Cabs

Ensuring that all day cab tractor fleets are zero-emissions by 2035 will reduce the dray off loophole. But many operators also use sleeper cabs for short-haul drayage. As a result, accelerating the transition for those tractors in Group 3 is not only important for addressing drayage operations, it is also feasible given the use case for many of these tractors.¹¹ CARB should shift all of the Group 3 milestones forward by three years (i.e., make the start date 2027 instead of 2030 and set the 100% milestone for 2039 instead of 2042).

- Lower the Priority Fleets Threshold for Class 7 and 8 Tractors

The Priority Fleets Rule must cover more fleets in drayage operations. The proposed cutoff for priority fleets in section 95962(a) is 50 trucks regardless of what type of truck is included in the fleet. This is not a rational approach for distinguishing between large and small businesses. A fleet of 20 cargo vans might not be the intended target, but a fleet of 20 Class 7 and 8 tractors should be regulated. Many of the drayage fleets that should be transitioning to zero-emissions by 2035 have fewer than 50 trucks.

¹¹ Indeed, commenters believe many of the long-haul sleeper cabs that have been used to justify delayed standards are actually not purchased in California. Our experience is that many of the sleeper cabs purchased in California are likely used only in short-haul service and therefore are ripe for electrification similar to day cab tractors.

To minimize the drayage loophole, CARB must revise section 95692(a)(2) to read: "Is a fleet owner with 10 or more Class 7 and 8 tractors, or 50 or more of any combination of vehicles." Combined with the other changes proposed in this letter, lowering the fleet threshold for large tractors will ensure the rule addresses the operations that most need to be transitioned to zero-emissions.

2. Address SB1 Loophole

SB1 defines the protected useful life of trucks but, after the retirements of model year 2010 and older trucks, does not require trucks exceeding their useful life to be retired or replaced. CARB has calculated the emission benefits if the State required all combustion trucks to be replaced with zero-emission ones once the combustion trucks reach the end of their useful life. NOx emission reductions from this fleet turnover scenario would be 33 tons per day in 2031 for 139,000 vehicles and 31 tpd in 2037 for 197,000 vehicles. This is 38% more emissions reductions than the Advanced Clean Trucks and Heavy-Duty Omnibus rules together will provide in 2031, and 65% more in 2037—as much emission reductions as the ACT and HDO combined. Such a strategy would provide huge benefits in non-attainment areas in California.

The ACF must not only ensure that combustion trucks are retired as soon as possible, but also that replacements are zero-emissions. Otherwise, combustion trucks could continue to be purchased and remain on the road for decades. The proposal recognizes the challenge posed by SB1 to transition fleets to zero-emissions, yet fails to minimize the delay and related health impacts caused by the law. The following changes are within CARB's authority to spur retirement of combustion trucks and accelerate the transition to zero-emission vehicles.

- Mandate Retirement for All Trucks Beyond SB1 Useful Life.

Section 95692.1(g) provides that "non-compliant" fleets can only add zero-emission trucks and must remove from their fleets any non-zero emission trucks that have exceeded their minimum useful life as defined by SB1. The proposed rule, however, includes no other requirement to retire old trucks that exceed their protected useful life.

The rule should mandate the retirement of all trucks that exceed their protected useful life and require that beginning January 1, 2027, any new purchases be zero-emission. The January 2027 date mirrors the 100% purchase mandate in the Public Fleets rule, allows time for zero-emission technologies to mature further, and is timed to capture the bulk of retirements as 2010 model year trucks reach their outer useful lives. This requirement can be layered on top of the ZEV targets to expedite the transition of the fleets while ensuring that SB1 does not create a loophole that allows new combustion trucks to remain in fleets well beyond the target dates for achieving 100 percent zero-emission trucks.

- Require Those Hiring Fleets to Hire Zero-Emission Fleets.

The proposed Priority Fleets Rule currently provides two ways for fleets to demonstrate compliance. First, under section 95692.1(a) and (b), a fleet can comply by meeting the prescribed zero-emission vehicle targets by the respective milestones for the various groups of trucks. Alternatively, because of SB1 and CARB's inability to force truck retirements within their

"useful life" as defined under SB1, section 95692.1(c) of the proposed rule allows fleets that do not purchase trucks after January 1, 2024 to remain in compliance while their trucks are within their useful lives.

In section 95692.1(h), the proposal goes on to require entities that operate or direct the operation of fleets to verify that each hired or dispatched fleet meets one of these two methods of compliance. While SB1 might demand some form of alternative compliance for owners of protected trucks, it does not mean that these trucks must be allowed to be hired or dispatched. CARB should revise section 95692.1(h) to encourage fleets to pursue the ZEV milestone compliance option rather than complying by retaining old fossil fuel trucks and avoiding new purchases.

- Set Earlier Cutoff for Alternative Compliance Option.

The SB1 alternative compliance option in section 95692.1(c) protects fleets that do not purchase trucks after January 1, 2024. Presumably this date was selected to follow final adoption of the ACF rule and align with the first year of compliance for other fleet requirements, but there is no legal basis for this cutoff date.

Because this date does not itself impose regulatory obligations, but instead only defines the cutoff for the applicability of the alternative compliance option, there is no concern about retroactively applying regulatory requirements. In the same way that the 2014 Truck and Bus regulations imposed future compliance obligations on vehicles purchased before the rule was adopted, so too can CARB establish a cutoff defining the future compliance obligations for trucks that are purchased before the rule is finalized.

CARB should revise section 95692.1(c)(2) to use January 1, 2022. This date will avoid creating perverse incentives to pre-buy new combustion vehicles ahead of the deadline. To the extent there is any concern about fairness, the earlier cutoff reflects the fact that CARB's rulemaking process, as well as the Board and Governor's directives that are driving the rulemaking, all provide very clear notice that new trucks purchased after January 1, 2022 should have no expectation for use beyond 2040.

3. Require Advanced Planning

One potential risk that could delay a fleet's ability to transition to ZEVs and comply with the ACF rule, is its lack of experience and understanding that infrastructure deployment requires long-term planning.¹² We appreciate that the proposed rules do not include exemptions based on the failure of a fleet operator to install necessary infrastructure. The failure to plan should never be allowed as an excuse to avoid compliance. Nonetheless, to help mitigate the risk of delay caused by delays in infrastructure deployment, we recommend that CARB require all regulated fleets to create and submit ZEV Rollout plans similar to those transit agencies completed for the Innovative Clean Transit¹³ rule that includes a charging infrastructure plan. Fleets will need to do this planning anyway, but by requiring it, CARB can

¹² Not that Industry has not already begun cautioning its members about planning ahead, Transport Topics (September 14, 2021) <https://www.ttnews.com/articles/thinking-about-shifting-electric-trucks-start-planning-panelists-say>

¹³ https://ww2.arb.ca.gov/sites/default/files/2019-10/ictfro-Clean-Final_0.pdf - see page 15.

ensure planning happens much sooner. And should CARB decide to add an exemption tied to lack of charging infrastructure, implementing this planning requirement would become even more necessary to ensure any such exemption is not open to abuse.

In addition to preempting unjustified claims for compliance relief, a planning requirement will reduce delays in infrastructure installation, and provide critical information to utilities planning for their own infrastructure buildout. This would be especially helpful for large fleets that may need significant infrastructure capacity upgrades from their utilities which could require 2+ years to engineer and install. Giving utilities advance planning data could enable them to shave years off project timelines. Affording utilities planning data from the MHD sector, which may have the most demanding infrastructure requirements, would allow them to begin least regrets planning in the most timely and cost-effective way. We encourage Staff to reach out to the utilities to develop a better understanding of how valuable this kind of data would be. Data produced from private fleets could be kept confidential from the public domain but shared under a non-disclosure agreement with their utilities.

We have heard staff concerns about the number of plans that could be required and the amount of administrative work it might require from CARB. While we believe it would be best for all regulated fleets to prepare plans, an alternative approach could be to have this requirement only apply to large fleets where the planning process may provide the most benefit.

4. Add Safeguards Around Proposed Exemptions

For exemptions and extensions that are not automatic and must instead be demonstrated by the regulated entity (e.g., the backup, daily mileage, and emergency response vehicle exemption in section 95692.2), CARB should include two safeguards to minimize abuse. First, CARB should provide that all relevant demonstrations, along with any CARB decision to grant such an exemption or extension, will be made publicly available. Such transparency will provide important information to impacted communities and promote accountability both on the part of the fleets and at CARB. Second, CARB should change the regulatory text to make it clear that the granting of such an exemption or extension is an act of enforcement discretion and is not mandatory. Thus the regulatory text should be clear that the Executive Office "may" grant such exemptions instead of "will."

5. Fix Hybrid Loophole

Both the Priority Fleet and Public Fleet Rules treat near-zero emission hybrids as satisfying the zero-emission vehicle obligations until 2035. *See* § 95692(b)(9) (defining "compliant vehicle") and § 95693.1(a)(1)(C) (outlining public fleet ZEV purchase requirement). We do not believe there is a rational basis for crediting these vehicles for so long, and recommend that this end no later than 2030. Of even more concern, however, is that the proposed definitions of near-zero emission vehicles in sections 95692(b)(33) and 95693(b)(18) are unworkably vague. They define NZEV as a vehicle capable of operating "like" a ZEV for some undefined "minimum number of miles." This language needs to be revised and tightened to make it clear that these vehicles must be equipped with a battery or fuel cell electric system with a rated zero-emission range of at least 50 miles.

6. Eliminate Used Vehicle Loophole for Public Fleets

Section 95693.1(a)(1) mandates that starting in 2024, 50 percent of new vehicle purchases, in certain jurisdictions, must be zero-emissions, and, starting in 2027, 100 percent of new vehicle purchases in all jurisdictions must be zero-emissions. This language must be revised to apply to "the total number of ~~new~~ all motor vehicle purchases" Limiting the purchase mandate only to new vehicle purchases would create a massive loophole that would swallow the rule. Public fleets could purchase used combustion vehicles forever and never transition to zero-emissions. It is not enough to rely on current government practices or procurement policies that tend to favor new, rather than used, vehicle purchases. Such practices and policies can be easily revised. This rule should not invite such gaming to undermine the directives to transition to zero-emissions.

III. Conclusions

There is simply no justification for the lack of ambition in the proposed ACF rule. A recent study by M.J. Bradley & Associates on the readiness of zero-emissions MHD trucks found that virtually all market segments have the potential to be fully mature by 2025, meaning that any trucks necessary for business purposes will soon be available if they are not already on the market.¹⁴ The need for a more rapid transition of MHD trucks to zero-emissions to meet the State's air quality and climate imperatives is clearly demonstrated in CARB's own Mobile Source Strategy, which calls for all truck sales to be zero-emissions by 2035. CARB can and must strengthen the proposed rule as follows:

1. Adopt a 100% sales mandate in 2035/2036;
2. Strengthen the commitments to achieve zero-emission drayage operations in 2035 by accelerating the targets and milestone dates for day cabs and sleepers, and adopting a lower cutoff for fleets of tractors;
3. Minimize the SB1 loophole by eliminating the option to hire non-ZE fleets, moving the compliance cutoff for non-ZE fleets to 2022, mandating the retirement of all trucks exceeding their useful lives, and adding a 100% ZEV purchase requirement for Priority Fleets beginning in 2027;
4. Require a ZEV rollout plan including infrastructure planning;
5. Provide transparency and enforcement discretion for exemptions;
6. Limit the hybrid loophole by adopting an earlier cutoff date and defining minimum ZE operations; and
7. Eliminate the used vehicle loophole in the Public Fleets rule.

¹⁴ M.J. Bradley & Associates, *Medium- & Heavy-Duty Vehicles: Market structure, Environmental Impact, and EV Readiness*, at 6 (<http://blogs.edf.org/climate411/files/2021/08/EDFMHDVEVFeasibilityReport22jul21.pdf>).

These changes are all within CARB's authority and are critical to closing glaring loopholes in the rule and closing the gap between the proposal and what is needed to protect public health and the climate.

Sincerely,

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